

This listing of the claims will replace all prior versions and listings of claims in the application:

LISTING OF THE CLAIMS

1 (currently amended) A method for forming a telescoped nanotube, comprising:

- (a) providing a multiwall nanotube comprised of an outer shell, a plurality of concentric inner shells, and an inner core, each of said outer shell, inner shells, and inner core having a first end and a second end in opposition thereto;
- (b) attaching the first end of the outer shell to a conductive substrate so as to be in electrical communication therewith;
- (c) removing the second end of the ~~outermost~~ outer shell and of the concentric inner shells, revealing the second end of the inner core;
- (d) attaching a nanomanipulator to the second end of the inner core, said nanomanipulator effective to partially extract the inner core from the outer shell; and
- (e) partially extracting the inner core from the outer shell and the concentric inner shells, thereby telescoping one segment of the multiwall nanotube.

2 (original): The method of claim 1, further comprising:

- (f) detaching the nanomanipulator from the inner core.

3 (previously presented): The method of claim 2, wherein the inner core is comprised of secondary concentric inner shells and a secondary inner core, each having first and second opposing ends, and steps (c) to (f) are repeated on the inner core so that multiple segments of nanotube are sequentially telescoped.

4 (previously presented): The method of claim 1, wherein the concentric inner shells comprise a series of shorter, fully capped, nanotube segments.

5 (original): The method of claim 1, wherein the multiwall nanotube comprises a material selected from the group consisting of GaSe; NiCl₂; TiO₂; Sb₂S₃; K₄Nb₆O₁₇; PbNb_mS_(2m+1), wherein m is an integer from 1 to 10; B_xC_yN_z, wherein x is about 0 to about 1, y is about 0 to about 3, and z is about 0 to about 4; MX_n wherein M is selected from the group consisting of Nb, V, Zr, Hf, Re, Pt, Ta, W, and Mo, X is selected from the group consisting of S, Se, and Te, and n is 2 or 3; and W_aMo_bC_cS₂ wherein a is about 0 to about 1, b is about 0 to about 3, and c is about 0 to about 4.

6 (original): The method of claim 5, wherein the material is carbon.

7 (original): The method of claim 1, wherein the number of inner shells ranges from about 3 to about 1000.

8 (original): The method of claim 7, wherein the number of inner shells ranges from about 3 to about 100.

9 (original): The method of claim 8, wherein the number of inner shells ranges from about 3 to about 50.

10 (original): The method of claim 1, wherein step (c) is conducted using a shaping electrode to remove material from the second end of the outer shell while the nanotube and the shaping electrode are under a potential difference.

11 (original): The method of claim 10, wherein the potential difference is no more than about 10 volts.

12 (original): The method of claim 11, wherein the potential difference is no more than about 5 volts.

13 (original): The method of claim 12, wherein the potential difference is about 0.5 to about 3.0 volts.

14 (original): The method of claim 10, wherein the potential of the nanotube is at or near ground.

15 (original): The method of claim 10, wherein the shaping electrode contacts the nanotube during step (c).

16 (original): The method of claim 10, wherein the shaping electrode does not contact the nanotube during step (c).

17 (previously presented): The method of claim 1, wherein steps (c) and (d) occur in simultaneously.

18 (withdrawn): A device comprising a telescoped multiwall nanotube comprised of:

- (a) an outer shell having a cylindrical wall, a closed end, and an interior cavity defined by the cylindrical wall and the closed end; and
- (b) a telescoped segment partially housed within the interior cavity of the outer shell and partially extending from the outer shell, wherein said telescoped segment has a cylindrical segment wall, a closed segment end, and a segment cavity.

19 (withdrawn): The device of claim 18, wherein the telescoped segment comprises a plurality of concentric telescoped segments each partially housed within the segment cavity of the concentric telescoped segment surrounding it and each having a portion partially extending from the segment cavity of the telescoped segment in which it is housed.

20 (withdrawn): The device of claim 19, further comprising an innermost concentric telescoped segment having a closed end on the partially extended portion.

21 (withdrawn): The device claim 20, wherein the multiwall nanotube comprises a material selected from the group consisting of: GaSe; NiCl₂; TiO₂; Sb₂S₃; K₄Nb₆O₁₇; PbNb_mS_(2m+1), wherein m is an integer from 1 to 10; B_xC_yN_z, wherein x is about 0 to about 1, y is about 0 to about 3, and z is about 0 to about 4; MX_n wherein M is selected from the group consisting of Nb, V, Zr, Hf, Re, Pt, Ta, W, and Mo, X is selected from the group consisting of S, Se, and Te, and n is 2 or 3; and W_aMo_bC_cS₂ wherein a is about 0 to about 1, b is about 0 to about 3, and c is about 0 to about 4.

22 (withdrawn): The device of claim 21, wherein the material is carbon.

23 (withdrawn): The device of claim 18, wherein the concentric telescoped segment is comprised of from about 3 to about 1000 concentric inner shells.

24 (withdrawn): The device of claim 23, wherein the concentric telescoped segment is comprised of from about 3 to about 100 concentric inner shells.

25 (withdrawn): The device of claim 24, wherein the concentric telescoped segment is comprised of from about 3 to about 50 concentric inner shells.

26 (withdrawn): The device of claim 18, wherein the concentric telescoped segment is movable.

27 (withdrawn): The device of claim 26, wherein the concentric telescoped segment provides a static spring force.

28 (withdrawn): The device of claim 26, wherein the concentric telescoped segment provides for substantially frictionless rotation.

29 (withdrawn): The device of claim 28, wherein the concentric telescoped segment further provides for substantially frictionless retraction.

30 (withdrawn): A bearing device comprising a telescoped multiwall nanotube comprised of:

- (a) an outer shell having a cylindrical wall, a closed end, and an interior cavity defined by the cylindrical wall and the closed end; and
- (b) a telescoped segment partially housed within the interior cavity of the outer shell and partially extending from the outer shell, wherein said telescoped segment has a cylindrical segment wall, a closed segment end, and a segment cavity,

wherein the concentric telescoped segment is movable.

31. (withdrawn): A switch device comprising a telescoped multiwall nanotube comprised of:

- (a) an outer shell having a cylindrical wall, a closed end, and an interior cavity defined by the cylindrical wall and the closed end; and
- (b) a telescoped segment partially housed within the interior cavity of the outer shell and partially extending from the outer shell, wherein said telescoped segment has a cylindrical segment wall, a closed segment end, and a segment cavity,

wherein the concentric telescoped segment is movable.

32. (withdrawn): A resistance potentiometer device comprising a telescoped multiwall nanotube comprised of:

- (a) an outer shell having a cylindrical wall, a closed end, and an interior cavity defined by the cylindrical wall and the closed end; and
- (b) a telescoped segment partially housed within the interior cavity of the outer shell and partially extending from the outer shell, wherein said telescoped segment has a cylindrical segment wall, a closed segment end, and a segment cavity,

wherein the concentric telescoped segment is movable.